

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A laser apparatus comprising:

a semiconductor laser element having a first active layer made of a GaN-based compound, and emitting first laser light; and

a surface-emitting semiconductor element having a second active layer made of a GaN-based compound, being excited with said first laser light, and emitting second laser light,

wherein the GaN-based compound in the first active layer of the semiconductor laser element is an InGaN material for emitting an excitation light in the 410 nm band, the surface-emitting semiconductor element further comprises a GaN substrate, and the first laser light is supplied to the surface-emitting semiconductor laser element through the GaN substrate.
2. (original): A laser apparatus according to claim said second active layer includes a plurality of quantum wells.
3. (original): A laser apparatus according to claim 2, wherein said second active layer includes twenty or more quantum wells.
4. (original): A laser apparatus according to claim 1, wherein said first active layer is made of an InGaN or GaN material, and said second active layer is made of an InGaN material.
5. (original): A laser apparatus according to claim 4, wherein said second active layer includes a plurality of quantum wells.

AMENDMENT UNDER 37 C.F.R. § 1.116
U. S. Application No. 09/659,456

6. (original): A laser apparatus according to claim 5, wherein said second active layer includes twenty or more quantum wells.

7. (original): A laser apparatus according to claim 1, wherein 1, wherein said first active layer is made of an InGaN or GaN material, and said second active layer is made of a GaNAs or InGaNAs material.

8. (original): A laser apparatus according to claim 7, wherein said second active layer includes a plurality of quantum wells.

9. (original): A laser apparatus according to claim 8, wherein said second active layer includes twenty or more quantum wells.

10. (withdrawn): A laser apparatus according to claim 1, further comprising at least one third semiconductor a GaN-based compound, and emits third laser light,

said surface-emitting semiconductor element being excited with said third laser light together with said first laser light.

11. (withdrawn): A laser apparatus according to claim 10, wherein said second active layer includes a plurality of quantum wells.

12. (withdrawn): A laser apparatus according to claim 11, wherein said second active layer includes more quantum wells.

13. (withdrawn): A laser apparatus according to claim 10, wherein said first active layer is made of an InGaN or GaN material, and said second active layer is made of an InGaN material.

14. (withdrawn): A laser apparatus according to claim 13, wherein said second active layer includes a plurality of quantum wells.

AMENDMENT UNDER 37 C.F.R. § 1.116
U. S. Application No. 09/659,456

15. (withdrawn): A laser apparatus according to claim 14, wherein said second active layer includes twenty or more quantum wells.

16. (withdrawn): A laser apparatus according to claim 10, wherein said first active layer is made of an InGaN or GaN material, and said second active layer is made of a GaNAs or InGaNAs material.

17. (withdrawn): A laser apparatus according to claim 16, wherein said second active layer includes a plurality of quantum wells.

18. (withdrawn): A laser apparatus according to claim 17, wherein said second active layer includes twenty or more quantum wells.

19. (withdrawn): A laser apparatus according to claim 1, further comprising at least one third semiconductor laser element, each having a third active layer made of a GaN-based compound, and emits third laser light,

said surface-emitting semiconductor element being excited with fourth laser light which is produced by polarization coupling of said first and third laser light.

20. (withdrawn): A laser apparatus according to claim 19, wherein said second active layer includes a plurality of quantum wells.

21. (withdrawn): A laser apparatus according to claim 20, wherein said second active layer includes twenty or more quantum wells.

22. (withdrawn): A laser apparatus according to claim 19, wherein said first active layer is made of an InGaN or GaN material, and said second active layer is made of an InGaN material.

23. (withdrawn): A laser apparatus according to claim 22, wherein said second active layer includes a plurality of quantum wells.

24. (withdrawn): A laser apparatus according to claim 23, wherein said second active layer includes twenty or more quantum wells.

25. (withdrawn): A laser apparatus according to claim 19, wherein said first active layer is made of an InGaN or GaN material, and said second active layer is made of a GaNAs or InGaNAs material.

26. (withdrawn): A laser apparatus according to claim 25, wherein said second active layer includes a plurality of quantum wells.

27. (withdrawn): A laser apparatus according to claim 26, wherein said second active layer includes twenty or more quantum wells.

28. (currently amended): A laser apparatus comprising:
a semiconductor laser element having a first active layer made of a GaN-based compound, and emitting first laser light;

a surface-emitting semiconductor element being excited with said first laser light, emits second laser light, and having a second active layer made of a GaN-based compound and a first mirror arranged on one side of said second active layer; and

a second mirror arranged outside said surface-emitting semiconductor element so that said first and second mirrors form a resonator, wherein the GaN-based compound in the first active layer of the semiconductor laser element is an InGaN material for emitting an excitation light in the 410 nm band, the surface-emitting semiconductor element further comprises a GaN

substrate, and the first laser light is supplied to the surface-emitting semiconductor laser element through the GaN substrate.

29. (original): A laser apparatus according to claim 28, wherein said second active layer includes a plurality of quantum wells.

30. (original): A laser apparatus according to claim 29, wherein said second active layer includes twenty or more quantum wells.

31. (original): A laser apparatus according to claim 28, wherein said first active layer is made of an InGaN or GaN material, and said second active layer is made of an InGaN material.

32. (original): A laser apparatus according to claim 31, wherein said second active layer includes a plurality of quantum wells.

33. (original): A laser apparatus according to claim 32, wherein said second active layer includes twenty or more quantum wells.

34. (original): A laser apparatus according to claim 28, wherein said first active layer is made of an InGaN or GaN material, and said second active layer is made of a GaNAs or InGaNAs material.

35. (original): A laser apparatus according to claim 34, wherein said second active layer includes a plurality of quantum wells.

36. (original): A laser apparatus according to claim 35, wherein said second active layer includes twenty or more quantum wells.

37. (withdrawn): A laser apparatus according to claim 28, further comprising at least one third semiconductor a GaN-based compound, and emits third laser light,

said surface-emitting semiconductor element being excited with said third laser light together with said first laser light.

38. (withdrawn): A laser apparatus according to claim 37, wherein said second active layer includes a of quantum wells.

39. (withdrawn): A laser apparatus according to claim 38, wherein said second active layer includes twenty or more quantum wells.

40. (withdrawn): A laser apparatus according to claim 37, wherein said first active layer is made of an InGaN or GaN material, and said second active layer is made of laser element, each having a third active layer made of plurality an InGaN material.

41. (withdrawn): A laser apparatus according to claim 40, wherein said second active layer includes a plurality of quantum wells.

42. (withdrawn): A laser apparatus according to claim 41, wherein said second active layer includes twenty or more quantum wells.

43. (withdrawn): A laser apparatus according to claim 37, wherein said first active layer is made of an InGaN or GaN material, and said second active layer is made of a GaNAs or InGaNAs material.

44. (withdrawn): A laser apparatus according to claim 43, wherein said second active layer includes a plurality of quantum wells.

45. (withdrawn): A laser apparatus according to claim 44, wherein said second active layer includes twenty or more quantum wells.

46. (withdrawn): A laser apparatus according to claim 28, further comprising at least one third semiconductor laser element, each having a third active layer made of a GaN-based compound, and emits third laser light,

said surface-emitting semiconductor element being excited with fourth laser light which is produced by polarization coupling of said first and third laser light.

47. (withdrawn): A laser apparatus according to claim 46, wherein said second active layer includes a plurality wherein said second active layer includes a plurality of quantum wells.

48. (withdrawn): A laser apparatus according to claim 47, wherein said second active layer includes twenty or more quantum wells.

49. (withdrawn): A laser apparatus according to claim 46, wherein said first active layer is made of an InGaN or GaN material, and said second active layer is made of an InGaN material.

50. (withdrawn): A laser apparatus according to claim 49, wherein said second active layer includes a plurality of quantum wells.

51. (withdrawn): A laser apparatus according to claim 50, wherein said second active layer includes twenty or more quantum wells.

52. (withdrawn): A laser apparatus according to claim 46, wherein said first active layer is made of an InGaN or GaN material, and said second active layer is made of a GaNAs or InGaNAs material.

53. (withdrawn): A laser apparatus according to claim 52, wherein said second active layer includes a plurality of quantum wells.

AMENDMENT UNDER 37 C.F.R. § 1.116
U. S. Application No. 09/659,456

54. (withdrawn): A laser apparatus according to claim 53, wherein said second active layer includes twenty or more quantum wells.

55. (previously presented): A laser apparatus according to claim 1, wherein the semiconductor laser element is a broad area type semiconductor laser element having output power substantially in a range of 1 to 10 watts and the laser apparatus generates output power up to several watts in a stable fundamental transverse mode.

56. (previously presented): A laser apparatus according to claim 28, wherein the semiconductor laser element is a broad area type semiconductor laser element having output power substantially in a range of 1 to 10 watts and the laser apparatus generates output power up to several watts in a stable fundamental transverse mode.

57. (canceled).

58. (canceled).